Bài 1

- Chứng minh $\boldsymbol{A} \Rightarrow \boldsymbol{F}$ từ KB như bên cạnh

KB
$A \Rightarrow (B \vee C)$
$B \Rightarrow (D \vee F)$
$A \wedge D \Rightarrow F$
$C \Rightarrow F$

- Chứng minh $\boldsymbol{R}$ từ KB như bên cạnh

KB
$(P \Rightarrow Q) \Rightarrow Q$
$R \Rightarrow (R \Rightarrow \neg P)$
$(R \Rightarrow S) \Rightarrow \neg(S \Rightarrow Q)$

- Chứng minh $\boldsymbol{C}$ từ KB như bên cạnh
- Chứng minh $\boldsymbol{B} \Rightarrow \neg\boldsymbol{C}$ từ KB như bên cạnh

KB
$A \Rightarrow B \vee C$
$A \Rightarrow D$
$C \wedge D \Rightarrow \neg F$
$B \Rightarrow F$
A

Bài 2:

Chuyển các câu sau đây sang FOL

1. Every house is a physical object
2. Some physical objects are houses
3. Every house has an owner
4. Everybody owns a house
5. Sue owns a house
6. Peter does not own a house
7. Somebody does not own a house
8. There are houses
9. There are human beings
10. No house is a human being
11. Some humans own a house

12. Lucy is a professor
13. All professors are people.
14. John is the dean.

15. Deans are professors.
16. All professors consider the dean a friend or don’t know him.
17. Everyone is a friend of someone.
18. People only criticize people that are not their friends.
19. Lucy criticized John.